

Work Order ID 144612

144612

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Thursday, April 28, 2016 10:01:57 AM

Item ID: D4294-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fitting
 Start Date: 5/3/2016 Start Qty: 600 ***6*** Cust Item ID:
 Required Date: 5/20/2016 Req'd Qty: 600 ***6*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4294	C

100	BAND SAW	0.00				8	φ		DAS 08 9-89
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	Cut Blank to 7.125"								
	****GRAIN ALONG 4"*****								

110	HAAS CNC VERTICAL MACHINING #1	0.21				8	φ		DAS 44 9-89
110									
HAAS 1	Memo	4.56							
HAAS CNC vertical machine #1	1-Machine per folio FB008								
	DWG REV: <u>C</u>								
	FOLIO REV: <u>AP</u>								
	2- deburr rough edges								

P70

DQA:

Date: 16.08.09



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16/08/09

Work Order update only ☐

Work Order: <u>144612</u> Part No. <u>D4294-1</u> NCR No. <u>16-5942</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☒ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐							
Date: <u>16-6-9</u>		Step #: <u>110</u>		QTY Effective: <u>1</u>			MRB (QSI042) Approval DAS 9 9-89 <u>16-06-09</u>				
Description Work Order Deviation				Disposition				Completed By <u>SL 16-6-9</u> Lead hand / Supervisor Approval Verification <u>D. 16/06/09</u> QC / QA Coordinator Approval DAS 9 9-89 <u>16-06-09</u>			
1 part scrap, there was 2 programs loaded in the machine... selected wrong program and part was machined under tolerance R.C. poor information				Scrap + replace <u>B132453</u>							
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ ☒ Poor Information Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ ☒ Over/Under tolerance Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved Crushing ☐ Countersink ☐ Off-set ☐ Drawing Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish Wave/Twist in Tube ☐ ☒ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐							
OTHER :											

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144612

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Thursday, April 28, 2016 10:01:58 AM

Item ID: D4294-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Fitting

Start Date: 5/3/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/20/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
130									
QC	Memo	0.12							DAS 08 9-89
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.24							
Hand Finishing									
145	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
145	m 134631.								
Powdercoat	Memo								
Powder Coating	MASK THREADED HOLE								

START: 2:45.
CUT: 3:20°
FINISH: 8:15.

8 20/6/0704 FEB. DAS 34 9-89

8 16075. DAS 34 9-89

Work Order ID 144612***144612***

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N900040100Setup Start ***NS1***

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Item Name: Fitting

Start Date: 5/3/2016 Start Qty: 6.00

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

Identify as per dwg & Stock Location: St 533

0.00

180

Packaging

Memo

0.06

Packaging

8DAS
6
9-89

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.60

Quality Control

16/7/12 JDDAS
21
9-89

JUL 08 2016

Picklist Print

Thursday, April 28, 2016 10:01:55 AM

Page 1

Work Order ID: 144612

144612

Parent Item: D4294-1

D4294-1

Parent Item Name: Fitting

Start Date: 5/3/2016

Required Date: 5/20/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A NEW ISSUE 10-11-25 JLM VERIFIED BY:DD IPP REV
B: AS PER REV B 11-02-15 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21209F1-10		Purchased		No			Each	68.0000		<i>68</i>			
MS21209F1-10										**	<i>FF</i>	<i>JUL 06 2016</i>	
HELI COIL													

DART AEROSPACE LTD		Work Order:	144612
Description: Fitting		Part Number:	D4294-1
Inspection Dwg: D4294 Rev: C		Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.065	+/-0.010	.065	/		Vern	FK-04
R0.063	+/-0.010	.063	/		R-G.	
0.305	+0.030/-0.010	.306	/		Vern	FK-04
3.17	+/-0.030	3.175	/			
3.11	+/-0.030	3.11	/			
0.325	+/-0.010	.325	/			
0.780	+/-0.010	.782	/			
0.80	+/-0.030	.801	/			
1.560	+/-0.010	1.560	/			
0.500	+/-0.010	.500	/			
0.070	+/-0.010	.070	/			
0.39	+/-0.030	.392	/			
0.500	+/-0.010	.503	/			
0.88	+/-0.030	.871	/			
3.44	+/-0.030	3.435	/			
2.450	+/-0.010	2.450	/			
2.04	+/-0.030	2.042	/			
1.528	+/-0.010	1.525	/			
0.300	+/-0.010	.296	/			
0.738	+/-0.010	.731	/			
0.25	+/-0.030	.249	/			
3.375	+/-0.010	3.375	/			
4.875	+/-0.010	4.875	/			
1.670	+/-0.010	1.670	/			
Ø0.386	+0.006/-0.001	.386	/			
Ø0.266	+0.006/-0.001	.266	/			
6.81	+/-0.030	6.814	/		Vern	FK-08
6.35	+/-0.030	6.35	/		"	"
1.46	+/-0.03	1.456	/		Vern	FK-04
0.050	+/-0.010	.05	/			
3.440	+/-0.010	3.442	/			
4.968	+/-0.010	4.968	/			
Ø0.875	+0.010/-0.001	.882	/			
0.332	+0.020/-0.010	.331	/			
Ø0.750	+/-0.010	.749	/			
6.49	+/-0.030	6.49	/		Vern	FK-09
0.691	+/-0.010	.691	/		"	"

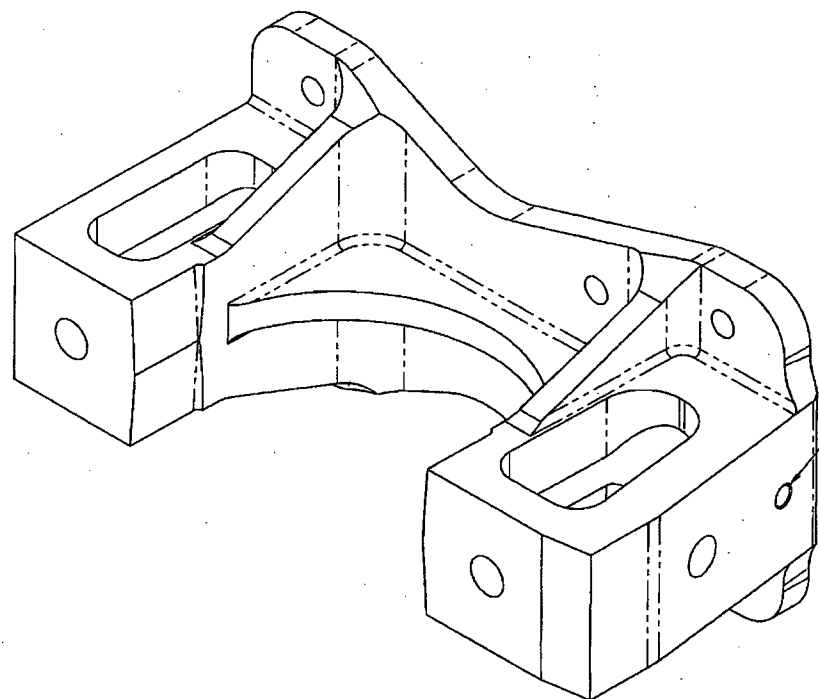
DART AEROSPACE LTD		Work Order:	144612
Description: Fitting		Part Number:	D4294-1
Inspection Dwg: D4294 Rev: C		Page 2 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.64	+/-0.030	0.636	✓		Venn	FK-01
Ø0.201	+0.005/-0.001	0.201	✓		Caliper	JCL-08
CSK Ø0.320 x 100°	+/-0.010	0.325	✓		Caliper	
0.764	+/-0.010	0.765	✓		↓	
Ø0.381	+0.000/-0.001	0.380	✓			
1.405	+/-0.010	1.405	✓			
1.125	+/-0.010	1.125	✓			

Measured by: ^{DAS} 44 / 9-89 ^{DAS} 32 Date: 16-06-08 / 16-06-08	Audited by: A.A. ^{DAS} 08 Date: 16/06/14 ^{DAS} 08	Preliminary Approval: Date:
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Rev	Date	Change	Revised by	Approved
A	14.09.08	New Issue	KJ	



D4294-1 FITTING

MS21209F1-10 HELICAL COIL, 1X
REF

GRAIN
DIRECTION

STOP COPY
RETURN TO
ENGINEERING
ON CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

144612 ML5

1604-22

RELEASED
R 2011-02-01

NOTES:

- 1) MATERIAL: 7075-T73/-T7351/-T73510/-T73511 BAR
PER AMS-QQ-A-200/11 OR AMS-QQ-A-225/9 (AMS 4124) OR AMS-QQ-A-250/12 (AMS 4078)
REF DART SPEC. M7075T73B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N "D4294-1" AND B/N PER DART QSI 044 6.1
- 7) WEIGHT: 1.55 lbs

C	ADD HELICAL COIL (D1-2, B4-3)	CP	11.01.14
B	0.780 WAS 0.76 (C6-2), 1.560 WAS 1.54 (C4-2)	CP	10.11.30
A	NEW ISSUE	CP	10.11.09
REV.	DESCRIPTION	BY	DATE
DESIGN	GP		
DRAWN	GP		
CHECKED	GP		
MFG. APPR.	GP		
APPROVED	GP		
DE APPR.	GP		
DATE	11.01.14		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D4294
REV. C
SHEET 1 OF 3
TITLE
FITTING (407 AFT)
SCALE
NTS

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